

130,911

PATENT



SPECIFICATION

*Application Date, Feb. 22, 1919. No. 4449/19.**Complete Left, Apr. 1, 1919.**Complete Accepted, Aug. 14, 1919.*

## PROVISIONAL SPECIFICATION.

## Improved Dovetail Connections for Bedsteads and other Furniture.

I, JOSEPH EVANS, trading as the Banbury Manufacturing Company, of Factory Street, Banbury, do hereby declare the nature of this invention to be as follows:—

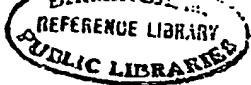
This invention has reference to metallic dovetail fittings or lift-off connections such as are used for securing the wooden side-members of mattress frames to the wooden head and foot end-rails of combination bedsteads, and for similar purposes.

These dovetail fittings, as adapted for use in combination bedsteads, comprise a taper plug or male element which is fixed to the end of a mattress side-rail and a correspondingly tapered socket or female member which is mounted on the end rail of a bedstead and is open at the upper end to admit of the plug member being dropped into and lifted out of the said socket in connecting and disconnecting a mattress frame to and from the bed end-rails. Usually these fittings are made by casting, but according to the present invention, it is proposed to produce both the plug and the socket members by stamping or fashioning sheet or unwrought metal blanks into forms which provide light but strong and efficient male and female connections that also embody means for fixing the dovetails to a bedstead or other article of furniture.

Describing first the improved female or socket member, this comprises a taper socket, open at top and front, and a back-plate that provides for the fixing of the fitting to the corner pillar of a bedstead end or the like. The same is made from a wrought metal blank comprising a tapering body part corresponding to the required shape of the back-plate, and two rectangular wings or extensions on the opposite sides of the lower or narrower portion of the back plate; the length of these wings corresponding to the depth of the socket portion to be produced. A third wing or extension may also be embodied in the blank across the lower or bottom edge of the same. These side extensions are, by operating on the blank by suitable tools, rolled or turned over to produce undercut or hook-sectioned headings that run round the sides and bottom of the lower portion of the back-plate; and provide engagements for corresponding parts of the male or plug member; the upper ends of the said headings being open to admit of the male member being dropped into and lifted out of connection therewith. And when the blank embodies an extension or wing piece along the bottom edge, this is turned up at right angles to the body of the back-plate and forms a closure to the bottom of the socket, as well as strengthening or stiffening this part of the fitment.

The back plate is extended for a distance above the mouth or upper open end of the taper socket portion and provides accommodation for fixing screws.

[Price 6d.]



Other fixing screws may also be passed through the lower part of the back-plate that carries the hooked or undercut beadings.

The plug or male member is also produced from a single wrought-metal blank, and it comprises two end straps for fixing purposes and a middle piece which is formed into the plug or male dovetail member of the fitting. Where 5 this member is intended to be fixed onto the side-rail end of a wooden mattress, the fixing straps are bent back at right angles to the middle piece and are adapted to be secured respectively, by screws or the like, to the upper and lower edges of the mattress rail, so as to suitably position the middle or plug portion at the end of the said rail. The formation of the plug is provided for by embodying in the blank, two wings or extensions disposed on opposite sides or edges of the middle portion of the said blank and these wings are operated upon by suitable tools to produce hook-sectioned beadings or flanges in which the hooks are set in the reverse direction to the hooked beadings of the socket member wherewith they are designed to respectively engage when the plug member is dropped or inserted from above, into the said socket. These beadings or flanges of the plug member are inclined towards one another to correspond to the taper of the socket member. 10 15

Dated this 21st day of February, 1919.

ARTHUR SADLER,  
Chartered Patent Agent,  
44, Waterloo Street, Birmingham,  
Agent for the Applicant.

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#### COMPLETE SPECIFICATION.

#### Improved Dovetail Connections for Bedsteads and other Furniture. 25

I, JOSEPH EVANS, trading as the Banbury Manufacturing Company, of Factory Street, Banbury, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:-

This invention has reference to metallic dovetail fittings or lift-off connections such as are used for securing wooden side-members of mattress frames to the wooden head and foot-end rails of combination bedsteads, and for similar purposes, and consists in improved sheet-metal fittings in which both the male or plug member and the female or socket member are made from sheet metal blanks and comprise, in their finished form, reversed hook-sectioned beadings which are adapted to slide into engagement in the manner hereinafter described for making connection between the two members; the said beadings or hook formations being made integral with fixing or attachment plates or shoes that provide for their attachment respectively to the end rails and side members of a combination bedstead or other article of furniture. 30 35 40

Figure 1 of the accompanying drawings shows a side elevation of a pair of dovetail connections in accordance with this invention; the male and female elements being shown attached respectively to the side-rail *a* and end-rail *b* of a combination bedstead or the like and in engagement one with the other.

Figure 2 is a section taken on the dotted line *x* Figure 1, showing the male or plug element in vertical section and the female or socket element in elevation. 45

Figure 3 is a horizontal section of the co-engaged fittings on the dotted line *x'* Figure 1.

Figure 4 shows the two parts separated; the socket element on the bedstead end being shown in vertical section whilst the plug element on the end-rail is shown in side elevation. 50

Figure 5 is a horizontal section of Figure 4 on the dotted line  $x^2$ .

Figure 6 shows a plan, side view and elevation of the plug element separately.

Figure 7 shows a side view and elevation of the socket element separately.

Figure 8 is an elevation and edge view of the wrought metal blank from which

5 the plug, with its integral attachment plates, is produced, and

Figure 9 shows like views of the blank from which the combined socket and attachment plate is produced.

The same letters of reference indicate corresponding parts in the several figures of the drawings.

10 Describing first the member  $c$  which is adapted to be attached to the pillar of a bedstead or the like as shown in Figures 1 to 5, this comprises a taper socket, open at the top  $c^1$  and at the front  $c^2$  and a back-plate  $c^3$  that provides for the attachment of the fitting. This is made or produced from a wrought metal blank (as shown in Figure 9) comprising a tapering body part  $d$  corresponding to the required shape of the back-plate, and two rectangular wings or extensions  $d^1$ ,  $d^2$ , on the opposite sides of the lower or narrower portion of the back-plate, the length of these wings corresponding to the depth of the socket portion to be produced. A third wing or extension  $d^3$  may also be embodied in the blank across the lower or bottom edge of the same. These side exten-

15 sions  $d^1$ ,  $d^2$  are, by operating on the blank by suitable tools, rolled or turned over to produce undercut or hook-sectioned beadings  $c^4$ ,  $c^5$ , that run round the sides and bottom of the lower portion of the back-plate, and provide engagements for corresponding parts of the plug member, the upper ends  $c^6$  of the said beadings being open to admit of the plug being dropped into and lifted out of connection therewith. And when the blank embodies an extension or wing piece  $d^3$  along the bottom edge, this is turned up at right angles to the body of the back-plate so as to form a closure  $c^7$  to the bottom of the socket, and strengthen or stiffen this part of the fitment.

20 The back-plate is extended for a distance above the mouth or upper open end of the taper socket portion and provides accommodation for fixing screws. Other fixing screws may also be passed through the lower part of the back-plate that carries the hooked or undercut beadings.

25 The plug member  $e$  is also produced from a single wrought-metal blank (Figure 8) and it comprises two end straps  $e^1$ ,  $e^2$  for fixing purposes, and a middle piece  $e^3$  which is formed into the plug dovetail member of the fitting. Where this member is intended, as in the form illustrated, to be fixed onto the side-rail end of a wooden mattress, the fixing straps  $e^1$ ,  $e^2$ , are bent at right angles to the middle piece, as shown in Figure 6, and are adapted to be secured respectively, by screws or the like, to the upper and lower edges of the mattress rail, so as to suitably position the middle or plug portion at the end of the said rail as shown in Figures 1 to 5.

30 The formation of the dovetail plug portion is provided for by embodying in the blank, two wings or extensions  $e^4$ ,  $e^5$ , disposed on opposite sides or edges of the middle portion  $e^3$  of the said blank, and these wings are operated upon by suitable tools to produce hook-sectioned beadings or flanges  $f^1$ ,  $f^2$ , in which the hooks are set in the reverse direction to the hooked beadings  $c^4$ ,  $c^5$ , of the socket member wherewith they are designed to respectively engage, in the manner shown in Figures 1, 2, and 3; when the plug member is dropped and inserted, from above, into the said socket. These co-engaging beadings or flanges  $c^4$ ,  $c^5$ ,  $f^1$ ,  $f^2$ , of the plug member are inclined towards one another to produce the necessary tapering shape of the two fittings.

35 Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

40 1. Improved dovetail connections, in which the plug and socket members are fashioned or produced from sheet metal blanks and comprise or embody

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reversed hook-sectioned beadings adapted to slide into engagement in the manner herein set forth.

2. Dovetail connections as claimed in Claim 1, in which the beadings or hook formations are integral with the fixing or attachment plates of the fittings.

3. The manufacture or production of a combined dovetail plug-member and its attachment plates from a sheet metal blank such as herein described with reference to Figure 8.

4. The manufacture or production of a combined dovetail socket-member and its attachment plate from a sheet metal blank such as herein described with reference to Figure 2. 10

5. The new or improved dovetail fittings as herein described with reference to the accompanying drawings.

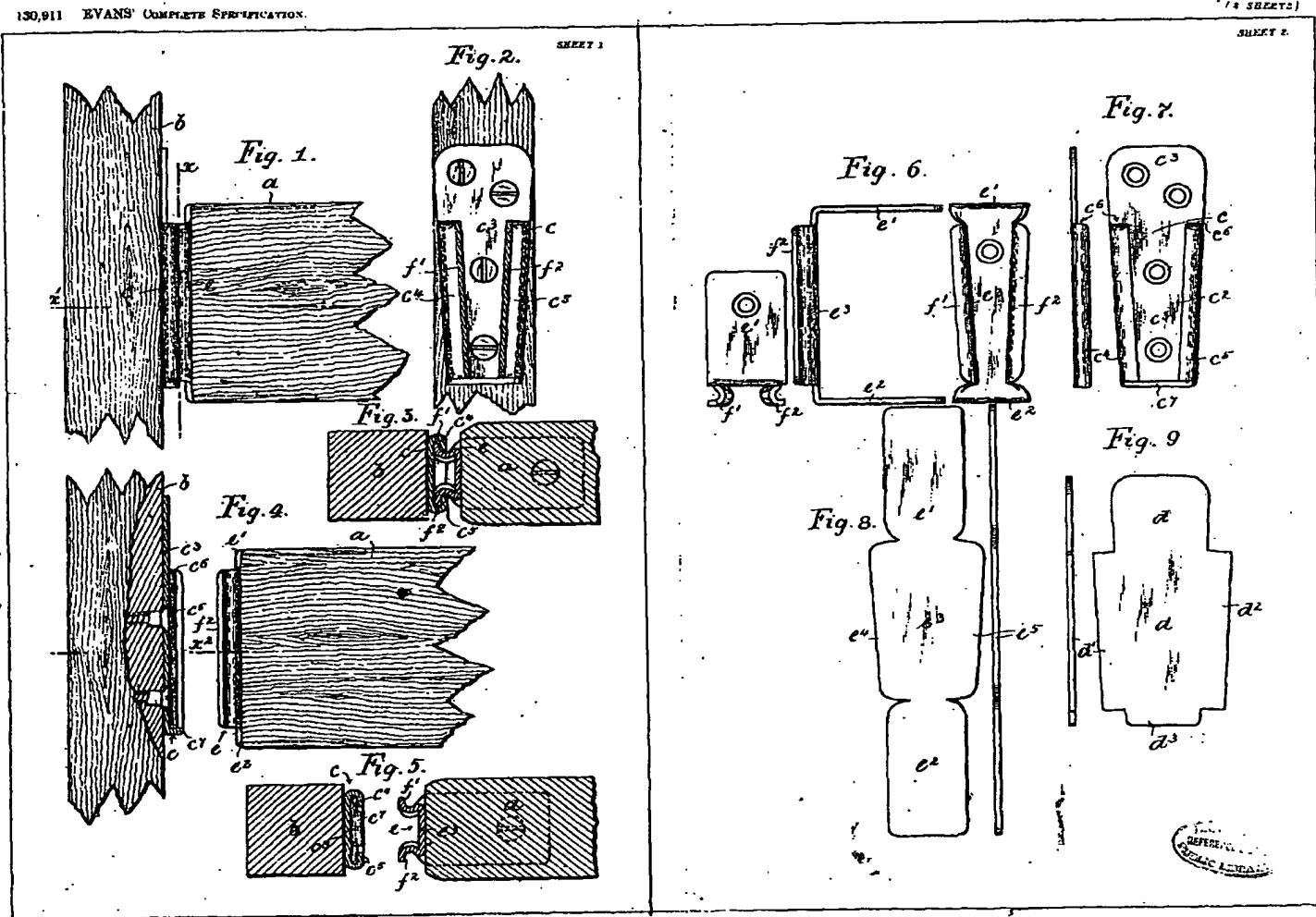
Dated this 31st day of March, 1919.

ARTHUR SADLER,  
Chartered Patent Agent,  
44, Waterloo Street, Birmingham,  
Agent for the Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Lloyds & Malcolmson, Ltd.—1919. 62

130,911 EVANS' COMPLETE SPECIFICATION.

[This Drawing is a reproduction of the Original on a reduced scale]



SHEET 1.

Fig. 2.

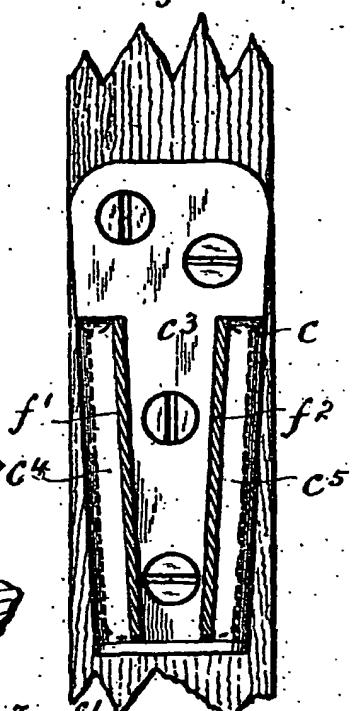


Fig. 1.

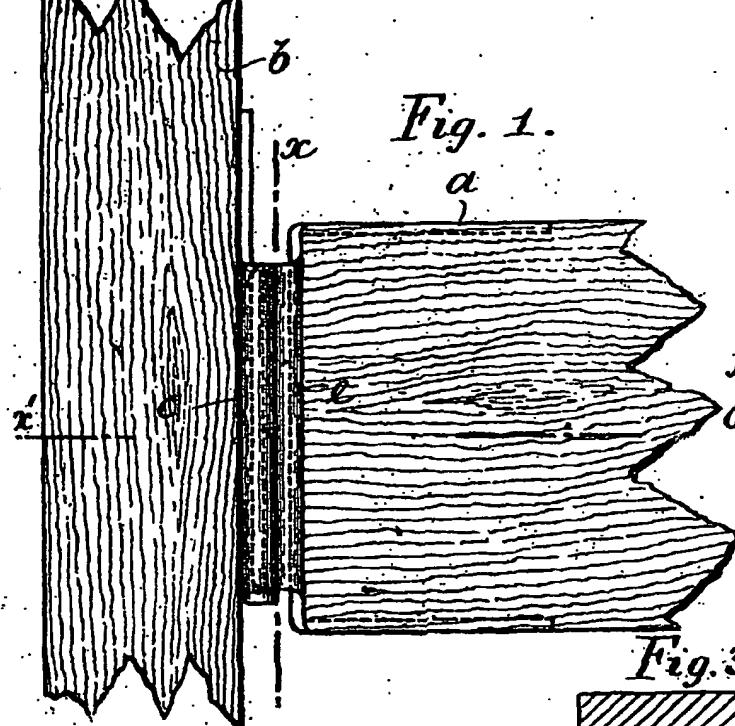


Fig. 3. f' c4

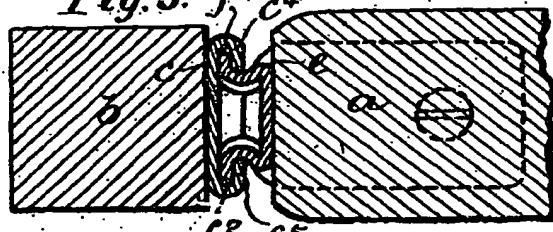


Fig. 4.

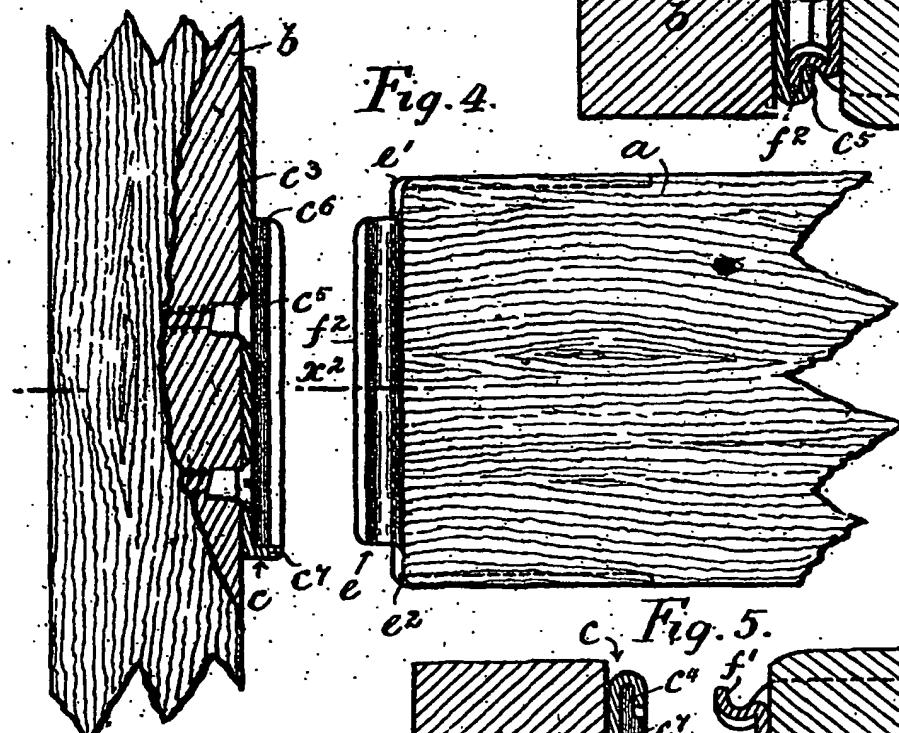
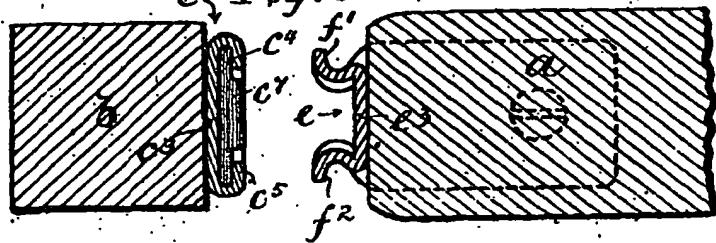


Fig. 5.



[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 7.

Fig. 6.

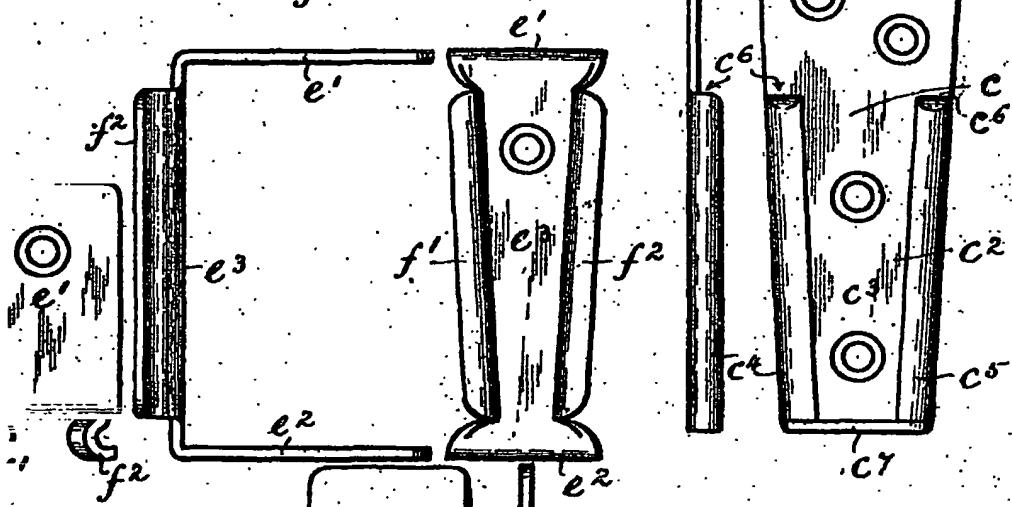


Fig. 9

Fig. 8.

